

### **REMARKS**

Reconsideration and allowance of the Claims of the present invention is respectfully requested.

#### **First Double Patenting Rejection**

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-9 of U.S. Patent No. 6,475,936. The rejection is based on the assertion that the claims of the present invention are "obvious variants" of Claims 1-9 of U.S. Patent No. 6,475,936.

It is respectfully submitted that Claims 1-9 of U.S. Patent No. 6,475,936 do not disclose or make obvious the following portions of Claim 1:

a second plurality of layers of fabric made of fibers, each of the layers being substantially surrounded and impregnated by a corresponding polymeric matrix comprising a thermoset resin, a thermoplastic resin, or mixtures thereof,  
wherein ... the first, second and third plurality of layers combined have an areal density of no more than 6.9 kilograms per square meter.

Similarly, Claims 1-9 of U.S. Patent No. 6,475,936 do not disclose or make obvious the following portions of independent Claim 4:

a second plurality of layers of fabric made of fibers, - each of the fabric layers being substantially surrounded and impregnated with a corresponding polymeric matrix comprising a thermoset resin, a thermoplastic resin, or mixtures thereof;

...

a fourth plurality of layers of tightly woven penetration resistant fabric made of fibers, the tightly woven fabric having a fabric tightness factor of at least 0.75,

wherein ... the first, second, third, and fourth plurality of layers combined have an areal density of no more than 7.8 kilograms per square meter.

All other Claims of the present invention are dependent on Claim 1 or 4, or both Claims 1 and/or 4.

In view of these reasons, Claims 1-9 of U.S. Patent No. 6,475,936 clearly do not make obvious the presently claimed invention. As such, this rejection should be withdrawn.

### **Second Double Patenting Rejection**

Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-12 of copending Application Serial No. 09/833,454 (which issued into U.S. Patent 6,610,617). Like the above first double patenting rejection, this one is based on the assertion that the Claims of the present invention are "obvious variants" of Claims 1-12 of U.S. Patent 6,610,617.

Claims 1-12 of U.S. Patent 6,610,617 do not disclose or make obvious the present invention. Claims 1-12 of U.S. Patent 6,610,617 disclose a "ballistic" resistant article having one set of fabric layers designed to resist ballistic threats. The loosely woven fabric for the single set of layers has a fabric tightness factor of 0.3 to 0.6. Claim 3 of U.S. Patent 6,610,617 says the layers include a matrix resin or binder.

In contrast, Claim 1 of the present invention recites a knife and ballistic projectile resistant article comprising a first plurality of layers, a second plurality of layers and a third plurality of layers. The second plurality of layers is substantially surrounded and impregnated by a polymeric matrix. Assuming the Examiner believes the only set of fabric layers in the matrix disclosed in Claims 1-12 of U.S. Patent 6,610,617 makes obvious the second plurality of layers substantially surrounded and impregnated by a polymeric matrix in Claim 1 of the present invention, then Claims 1-12 of U.S. Patent 6,610,617 clearly do not disclose or make obvious the first plurality of layers and the third plurality of layers recited in Claim 1 of the present invention. Further, although Claims 1-12 of U.S. Patent 6,610,617 disclose that an article that can only resist ballistic threats having only one set of layers has an areal density of 2 to 10 kg/m<sup>2</sup>, such a disclosure clearly does not make obvious an article capable of resisting knife and ballistic projectile threats with 3 sets of layers, with the entire article having an areal density of no more than 6.9 kg/m<sup>2</sup> as recited in Claim 1 of the present invention.

Claim 4 of the present invention is even more distinct and unobvious in view of Claims 1-12 of U.S. Patent 6,610,617. Claim 4 recites a spike, knife and ballistic projectile resistant article comprising a first plurality of layers, a

second plurality of layers, a third plurality of layers, and a fourth plurality of layers. The first three sets of layers are the same as those recited in Claim 1 and distinguish over Claims 1-12 of U.S. Patent 6,610,617 for the reasons stated above in response to the first rejection. In addition, Claim 4 recites "a fourth plurality of layers of tightly woven penetration resistant fabric made of fibers, the tightly woven fabric having a fabric tightness factor of at least 0.75." This set of layers, itself, is not disclosed by or obvious from Claims 1-12 of U.S. Patent 6,610,617, much less this set of layers combined with the other 3 sets of layers having a total areal density of no more than 7.8 kg/m<sup>2</sup> as recited in Claim 4.

Again, all other claims of the present invention are dependent on Claim 1, Claim 4, or both Claims 1 and/or 4. In view of these reasons, Claims 1-12 of U.S. Patent 6,610,617 clearly do not make obvious the present invention. As such, this rejection should be withdrawn.

#### **Conclusion**

The foregoing reasons are believed to comprise a full and complete response to the outstanding non-final Examiner's Office Action. Further, it is submitted that any basis for the rejections of the Claims has been obviated. Thus, Claims 1-15 are respectfully submitted to be in condition for allowance. Favorable reconsideration with subsequent allowance of Claims 1-15 is respectfully requested. If any matter remains to be resolved before allowance, the Examiner is encouraged to call Applicant's attorney at the number provided below.

Respectfully submitted,



JOHN E. GRIFFITHS  
ATTORNEY FOR APPLICANT  
REGISTRATION NO. 32,647  
TELEPHONE: (302) 892-7909  
FACSIMILE: (302) 892-7343

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